



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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08/607.169 02/26/96 KATO

M 35.C11250

EXAMINER

B5M1/0717

FTIZPATRICK CELLA HARPER & SCINTO
277 PARK AVENUE
NEW YORK NY 10172

SCHUBERG, D

ART UNIT PAPER NUMBER

2507

DATE MAILED:

07/17/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

NOTICE OF ALLOWABILITY

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☐ This communication is responsive to _____

☒ The allowed claim(s) is/are 13-37

☐ The drawings filed on _____ are acceptable.

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☒ including changes required by the Notice of Draftperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4 and 5

☒ Notice of Draftperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☐ Interview Summary, PTO-413

☒ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☒ Examiner's Statement of Reasons for Allowance



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

BSM1/0717

FTIZPATRICK, CELLA HARPER & SCINTO
277 PARK AVENUE
NEW YORK NY 10172

BEST AVAILABLE COPY

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/607,169	02/26/96	025	SCHUBERG, D	2507 07/17/97
First Named Applicant	KATO, MANABU			

TITLE OF INVENTION SCANNING OPTICAL APPARATUS

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 35.011250	359-204,000	P34	UTILITY	NO	\$1290.00	10/17/97

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

DETAILED ACTION

Election/Restriction

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

- a. Figures 4-23, drawn to a single lens imaging element.
- b. Figures 24-27, drawn to a two lens imaging element.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no generic claims are identified.

Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant

must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Should applicant elect species (a), then the following restriction applies:

- I. Claims 2 and 8, drawn to a multiple light source scanning optical apparatus with an imaging lens with an aspherical surface shape in the main scanning direction, classified in class 359, subclass 204.
- II. Claims 1, 3-7 and 9-12, drawn to a scanning optical apparatus with an imaging lens with an aspherical surface shape in the main scanning direction, classified in class 359, subclass 205.
- III. Claims 13-24, drawn to a multiple light source scanning optical apparatus, classified in class 359, subclass 204.

2. The inventions are distinct, each from the other because of the following reasons: Inventions I and (II and III) are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombinations as claimed because Groups II and III each provide evidence that the particulars of the other are not necessary to support patentability. The subcombinations have separate utility such as scanning a single light beam (Group II) and scanning a plurality of light beams using an imaging lens of a spherical nature in the main scanning direction (Group III).

3. Because these inventions are distinct for the reasons given above and the search required for Groups I and III, namely class 359, subclass 204, is not required for Group II, and Group I would require a search in class 359, subclass 708, which Group III would not, restriction for examination purposes as indicated is proper.

4. Applicant's election **without** traverse of species (a), drawn to a single lens imaging element, in Paper No. 7 is acknowledged.

Applicant is correct in designating claims 1-24 and newly added claim 37 as reading on the elected species. Claims 25-36 are withdrawn as being drawn to a non-elected species.

5. Claims 1-12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected Groups within the elected species, the requirement having been traversed in Paper No. 7.

6. In light of the above restriction requirement and the subsequent submission of a pre-amendment which includes both an election and an additional claim generic to the two species cited above, the examined claims will be claims 13-24 and claim 37.

Allowable Subject Matter

7. Claims 13-24 and 37 are allowed. In light of the allowance of claim 37, which is generic to species (a) and (b), claims 25-36, drawn to species (b), are rejoined and are also found to be allowable.

8. The following is an examiner's statement of reasons for allowance: All of the claims (13-37) include the combination of multiple light source units capable of being independently modulated and at least one post deflector optical surface with varying curvature in the sub-scanning direction from on-axis to

off-axis. The prior art does not teach or suggest such a combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner's Amendment

9. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael O'Neill, reg. no. 32,622, on 7/14/97.

10. The application has been amended as follows:

In the claims:

Claims 1-12 have been canceled as being drawn to a non-elected invention.

Serial Number: 08/607,169
Art Unit: 2507

Page 7


Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The U.S. patent of Yamada et al., Connell et al. and Eguchi et al. all show multiple light source scanning systems with f-theta lenses. However, no specific embodiments of the f-theta lenses are described.

12. Papers related to this application may be submitted by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The fax number for Art Unit 2507 is (703) 308-7726.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren Schuberg whose telephone number is (703) 308-4815.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

^A 
Darren Schuberg
July 15, 1997


PAUL M. DZIERZYNSKI
SUPERVISORY PATENT EXAMINER
GROUP 2500